

IN THE CLAIMS:

1. (currently amended) A combustion apparatus comprising:
a fuel tank,
a spraying means for spraying a fuel,
a first channel for supplying the fuel from the fuel tank to the spraying means,
a second channel for flowing the fuel therethrough from the spraying means to the
first channel to be recirculated to the spraying means,
an intermittently operating valve disposed in the second channel so as to be closed
and opened intermittently or periodically to adjust an amount of the fuel sprayed by the
spraying means,
wherein at least part of the intermittently operating valve is enclosed with a casing,
and
wherein the casing comprises an inlet joint connected to an inlet side of the
intermittently operating valve and an outlet joint connected to an outlet side of the
intermittently operating valve.
2. (cancelled).
3. (Previously presented) The combustion apparatus as defined in claim 1,
wherein the valve is disposed in a space enclosed with the inlet joint and the outlet joint.

4. (Previously presented) The combustion apparatus as defined in claim 1, wherein a connecting portion with the inlet joint and the outlet joint are in close contact with each other.

5. (Previously presented) The combustion apparatus as defined in claim 1, wherein the inlet joint and the outlet joint having an indentation respectively, so that the indentations jointly form a through-hole for letting therethrough a wiring connected to the valve, and

the combustion apparatus further comprises a seal which engages with each indentation so that it fits in the annular gap between the through-hole and a periphery of the wiring being mounted on the wiring.

6. (original) The combustion apparatus as defined in claim 1, further comprising a fuel pump for sending the fuel to the spraying means and disposed in the channel, and

wherein the casing is directly connected to at least one of the fuel pump and the spraying means.

7. (original) The combustion apparatus as defined in claim 1, further comprising a filling filled between the casing and the intermittently operating valve.

8. (Currently amended) A combustion apparatus comprising:

a fuel tank,

a spraying means for spraying a fuel,

a first channel for supplying the fuel from the fuel tank to the spraying means,

a second channel for flowing the fuel therethrough from the spraying means to the first channel to be recirculated to the spraying means,

an intermittently operating valve disposed in the second channel so as to be closed and opened intermittently or periodically to adjust an amount of the fuel sprayed by the spraying means and having operating components in a housing,

a casing around the valve housing and enclosing at least part of the valve, and
at least one fluidic component disposed in the channel and secured to the casing.

9. (original) The combustion apparatus as defined in claim 8,

further comprising a pressure buffer for buffering a pressure in the channel disposed in the channel and secured to the casing.

10. (original) The combustion apparatus as defined in claim 8,

further comprising a checking means disposed in the channel and secured to the casing for preventing the fuel flowing through the channel from flowing backward.

11. (original) The combustion apparatus as defined in claim 8,

further comprising:

a pressure buffer for buffering the pressure in the channel and a checking means in the channel, and

wherein the pressure buffer and the checking means are secured to the casing.

12. (original) The combustion apparatus as defined in claim 8, wherein to the casing is secured at least part of the channel for flowing the fuel therethrough.

13. (Currently amended) A combustion apparatus comprising:
a fuel tank,
a spraying means for spraying a fuel,
a first channel for supplying the fuel from the fuel tank to the spraying means,
a second channel for flowing the fuel therethrough from the spraying means to the first channel to be recirculated to the spraying means,
an intermittently operating valve disposed in the second channel so as to be closed and opened intermittently or periodically to adjust an amount of the fuel sprayed by the spraying means and having operating components in a housing,
a casing around the valve housing and enclosing at least part of the intermittently operating valve, and
at least one elastic member interposed between the valve housing and the casing.

14. (Previously presented) The combustion apparatus as defined in claim 13,
wherein the intermittently operating valve comprises a valve body capable of being driven so as to close and open the valve periodically and the valve housing accommodates the valve body, and
the elastic member being mounted on the valve housing.

15. (original) The combustion apparatus as defined in claim 13,
wherein the intermittently operating valve is connected to the casing via at least two connecting portions at both ends on inlet and outlet sides of the valve, and
wherein at least the connecting portion at the end of the outlet side is sealed up with and supported firmly by the elastic member.

16. (original) The combustion apparatus as defined in claim 13,
wherein the at least one elastic member comprises two elastic members, one of which is interposed between the casing and an inlet side of the valve and the other of which is interposed between the casing and an outlet side of the valve, and
wherein the elastic member interposed between the casing and the outlet side has a stronger elastic force than the elastic member interposed between the casing and the inlet side.

17. (Previously presented) The combustion apparatus as defined in claim 13,
wherein the intermittently operating valve comprises a built-in actuator reciprocating periodically so as to open and close the valve,
wherein the elastic member is interposed in a space between the casing and the valve housing where a force in the direction of the reciprocation of the actuator acts.

18. (Previously presented) The combustion apparatus as defined in claim 13,
wherein the intermittently operating valve has a built-in actuator reciprocating periodically so as to open and close the valve, and

further comprising:

a vibration-isolating member interposed between the valve housing and the casing and for buffering a force acting from the valve housing to the casing in the direction of the reciprocation of the actuator, and

a seal interposed between the valve housing and the casing so as to prevent the fuel flowing in and out of the valve from leaking.

19. (Previously presented) The combustion apparatus as defined in claim 13, wherein the intermittently operating valve has a built-in actuator reciprocating periodically so as to open and close the valve, and

further comprising:

a vibration-isolating member interposed between the valve housing and the casing and for buffering a force acting from the valve housing to the casing in the direction of the reciprocation of the actuator, and

a seal interposed between the valve housing and the casing so as to prevent the fuel flowing in and out of the valve from leaking,

the vibration-isolating member having a stronger elastic force than the seal member.

20. (Previously presented) The combustion apparatus as defined in claim 13, wherein the intermittently operating valve has a built-in actuator reciprocating periodically so as to open and close the valve, and

wherein the elastic member is interposed between the valve housing and the casing and comprises a vibration-isolating portion for buffering a force acting from the valve housing to the casing in the direction of the reciprocation of the actuator and a sealing portion for preventing the fuel flowing in and out of the valve from leaking and interposed between the valve housing and the casing.

21. (Previously presented) The combustion apparatus as defined in claim 1, further comprising at least one elastic member interposed between the intermittently operating valve housing and the casing.

22. (Previously presented) A combustion apparatus comprising:
a spraying means for spraying a fuel from a tank,
a channel for flowing the fuel therethrough,
a return canal that communicates unburnt fuel back towards the tank, and
an intermittently operating valve disposed in the return canal so as to be closed and opened intermittently or periodically,
wherein at least part of the intermittently operating valve is enclosed with a casing.

23. (Previously presented) The combustion apparatus according to claim 1, wherein the intermittently operating valve is repeatedly opened and closed at given time intervals.

24. (Previously presented) The combustion apparatus according to claim 8, wherein the intermittently operating valve is repeatedly opened and closed at given time intervals.

25. (Previously presented) The combustion apparatus according to claim 13, wherein the intermittently operating valve is repeatedly opened and closed at given time intervals.

26. (Previously presented) The combustion apparatus according to claim 22, wherein the intermittently operating valve is repeatedly opened and closed at given time intervals.

27. (Previously presented) The combustion apparatus according to claim 1, wherein the spraying means sprays fuel from a tank, the combustion apparatus comprises a return canal that communicates unburnt fuel back towards the tank, and the intermittently operating valve is disposed in the return canal.

28. (Previously presented) The combustion apparatus according to claim 8, wherein the spraying means sprays fuel from a tank, the combustion apparatus comprises a return canal that communicates unburnt fuel back towards the tank, and the intermittently operating valve is disposed in the return canal.

29. (New) The combustion apparatus according to claim 1 further comprising two elastic members, one of which is interposed between the casing and the inlet side of the valve and the other of which is interposed between the casing and the outlet side of the valve.

30 (New) The combustion apparatus according to claim 1 further comprising a built-in actuator reciprocating periodically so as to open and close the valve and an elastic member interposed in a space between the casing and a valve housing where a force in the direction of the reciprocation of the actuator acts.

31. (New) The combustion apparatus according to claim 8 further comprising two elastic members, one of which is interposed between the casing and an inlet side of the valve and the other of which is interposed between the casing and an outlet side of the valve.

32. (New) The combustion apparatus according to claim 8 further comprising a built-in actuator reciprocating periodically so as to open and close the valve and an elastic member interposed in a space between the casing and a valve housing where a force in the direction of the reciprocation of the actuator acts.

33. (New) The combustion apparatus according to claim 22 further comprising two elastic members, one of which is interposed between the casing and an inlet side of

the valve and the other of which is interposed between the casing and an outlet side of the valve.

34. (New) The combustion apparatus according to claim 22 further comprising a built-in actuator reciprocating periodically so as to open and close the valve and an elastic member interposed in a space between the casing and a valve housing where a force in the direction of the reciprocation of the actuator acts.